

Physics	Group-II	Paper-II
Time: 15 Minutes	(Objective Type)	Max. Marks: 12

**Note:** Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

- 1-1- **The index of refraction depends on:**
  - (a) Focal length
  - (b) The speed of light ✓
  - (c) The image distance
  - (d) The object distance
- 2- **An electric current in conductor is due to the flow of:**
  - (a) Positive ion
  - (b) Negative ion
  - (c) Positive charges
  - (d) Free electron ✓
- 3- **Capacitance is defined as:**
  - (a)  $VC$
  - (b)  $\frac{Q}{V}$  ✓
  - (c)  $QV$
  - (d)  $\frac{V}{Q}$
- 4- **What is the direction of the magnetic field lines inside a bar magnet:**
  - (a) From north pole to south pole
  - (b) From south pole to north pole ✓
  - (c) From side to side
  - (d) There are no magnetic field lines
- 5- **Which form of energy is sound:**
  - (a) Electrical
  - (b) Mechanical ✓
  - (c) Thermal
  - (d) Chemical



- 6- The direction of induced e.m.f in circuit is in accordance with conservation of:
- (a) Mass (b) Charge  
(c) Momentum (d) Energy ✓
- 7- Which of the following characteristics of the wave is independent of the other:
- (a) Speed (b) Frequency  
(c) Amplitude ✓ (d) Wavelength
- 8- When Uranium (92 Protons) ejects a beta particle, how many protons will be in the remaining nucleus:
- (a) 89 (b) 90  
(c) 91 (d) 93 ✓
- 9- For a normal person, audible frequency range for sound wave lies between:
- (a) 10 Hz and 10 KHz  
(b) 20 Hz and 20 KHz ✓  
(c) 25 Hz and 25 KHz  
(d) 30 Hz and 30 KHz
- 10- The brain of any computer system is:
- (a) Monitor (b) Memory  
(c) C.P.U. ✓ (d) Control unit
- 11- The particles emitted from hot cathode surface are:
- (a) Positive ions (b) Negative ions  
(c) Protons (d) Electrons ✓
- 12- In computer terminology, information means:
- (a) Any data  
(b) Raw data  
(c) Processed data ✓  
(d) Large data